

## CiscoWorks Quality of Service Policy Manager 4.1

CiscoWorks Quality of Service Policy Manager (QPM) facilitates centralized management of quality of service (QoS). It provides comprehensive QoS provisioning and monitoring capabilities so that network administrators can manage and tune the performance characteristics of their Cisco® network to optimize application performance and maximize network resources.

### Product Overview

CiscoWorks Quality of Service Policy Manager (Figure 1) provides centralized management of quality of service policy creation, validation, deployment, and monitoring to facilitate the secure and predictable delivery of networked services, such as business application, video, voice over Internet Protocol (VoIP), Cisco TelePresence®, and other networked applications.

**Figure 1.** CiscoWorks QPM Policy Start Page



Designing, deploying, and monitoring QoS is a complex process that requires enterprise-grade automation. CiscoWorks QPM provides network administrators, designers, and operators with comprehensive QoS provisioning and monitoring capabilities, allowing them to manage and fine-tune the delay, delay variation (jitter), bandwidth, and packet loss parameters required for successful end-to-end deployment and optimal utilization of network resources. The end result is networkwide intelligent, consistent, and effective QoS that allows performance protection for voice, video, and networked business applications while reducing costs and optimizing the utilization of network resources.

CiscoWorks QPM leverages the intelligent network services available in Cisco networking equipment, such as Cisco network-based application recognition (NBAR), Cisco Modular QoS CLI (MQC), Cisco AutoQoS, and others. Through these technologies, CiscoWorks QPM is able to identify and monitor, in real time, the performance of networked applications, and it centrally creates and deploys to Cisco devices QoS policies to track, manipulate, and control the behavior of those applications in order to meet business demands and application requirements. See Figure 2.

**Figure 2.** CiscoWorks QPM Main Dashboard



## Key Features and Benefits

Table 1 lists the primary features of CiscoWorks QPM.

**Table 1.** CiscoWorks QPM Features and Benefits

Feature	Benefits
<b>QoS provisioning</b>	<ul style="list-style-type: none"> <li>Significantly reduces cost and time required for efficient design and deployment of QoS across thousands of devices and hundreds of thousands of interfaces on a broad range of Cisco routers and switches</li> <li>Abstracts the complexity of QoS technology through features such as QoS Policy Templates and QoS Policy Wizards to automate the process of configuring QoS and delivering consistent application behavior</li> <li>Customizable portal dashboard (Figure 2) for at-a-glance summary of QoS policy deployment status, performance threshold violations, and network change events</li> </ul>
<b>QoS monitoring</b>	<ul style="list-style-type: none"> <li>Performs real-time and historical monitoring of application traffic</li> <li>Measures traffic throughput for top applications and service classes</li> <li>Troubleshoots problems by providing real-time and historical QoS feedback</li> <li>Helps ensure compliance of applications with QoS</li> <li>Alerts users of QoS violations such as user-defined threshold excesses</li> <li>Analyzes the impact of applied QoS policies on Cisco Unified Communications</li> <li>Validates network configuration changes against defined QoS policies</li> </ul>

## CiscoWorks Integration

As a CiscoWorks application, CiscoWorks QPM integrates with the extensive features and capabilities of other CiscoWorks products, including the import of detailed device credential data from CiscoWorks Device Credentials Repository (DCR), providing data consistency among CiscoWorks products. CiscoWorks QPM also utilizes the features of CiscoWorks Common Services Software. CiscoWorks QPM 4.1 can coexist on the same server as CiscoWorks LAN Management Solution (LMS) 3.1 and share dashboard portal applications to improve operational workflow and management effectiveness.

In environments utilizing CiscoWorks Network Compliance Manager (NCM), CiscoWorks QPM can be notified of device configuration changes and software image changes. CiscoWorks QPM can then validate the integrity of its deployed QoS policies and monitor the impact of those changes against performance threshold policies. CiscoWorks QPM can automatically redeploy its QoS policies back to the network.

## Device Support

CiscoWorks QPM supports an extensive range of Cisco wide-area network (WAN) and local-area network (LAN) networking equipment. QoS statistics can be monitored in real time or historically for all Cisco devices supporting the following management information databases (MIBs): the Class-Based QoS (CBQoS) MIB for monitoring modular QoS policies, the Cisco NBAR protocol discovery MIB for application-level discovery and traffic statistics monitoring, the Cisco Port QoS MIB for per port QoS monitoring, the Committed Access Rate (CAR) MIB for nonmodular QoS policies. CiscoWorks QPM provides a comprehensive device/OS upgrade support package, including up-to-date support of the QoS command-line interface (CLI) on a majority of Cisco routers (including Cisco IOS<sup>®</sup> Software XR-based devices such as the Cisco Carrier Routing System-1) and Cisco Catalyst<sup>®</sup> switches running Cisco IOS Software. For a complete list of supported devices, please visit the CiscoWorks QPM product page on Cisco.com or click [here](#). CiscoWorks QPM is periodically updated to support new devices as they become available or to meet market demands.

## Licensing

CiscoWorks QPM is licensed on the basis of the number of devices to be managed and the features options selected: combined QoS provisioning and monitoring, or monitoring only. Customers must purchase a software license for the CiscoWorks QPM feature options selected and for the appropriate device count increments for the desired count of managed devices. Additionally, a small and medium-sized business (SMB) version is available.

## Computing Platform Requirements

CiscoWorks QPM can be installed on either a Windows server or a Solaris server. Please refer to the recommended configurations given in Tables 2 through 4 for detailed information on preparing your network for CiscoWorks QPM deployment.

**Table 2.** CiscoWorks QPM Server Requirement – Windows

Server Component	Minimum Specification for Managing Small to Medium-Sized Networks	Minimum Specification for Managing Large Networks
<b>Processor</b>	2.8-GHz Intel Pentium 4 or 2.8-GHz Intel Xeon	Dual core 2.8-GHz Intel Pentium 4 or dual 2.8-GHz Intel Xeon
<b>Memory</b>	2 GB RAM	4 GB RAM
<b>Virtual memory</b>	Double the amount of RAM	Double the amount of RAM
<b>Disk space</b>	40 GB (The available disk space required depends on the tasks you want to do in CiscoWorks QPM.) CiscoWorks Common Services Software requires 2 GB free disk space; therefore, make sure that you have a minimum of 9 GB free disk space before you install CiscoWorks Common Services and CiscoWorks QPM.	80 GB (The available disk space required depends on the tasks you want to do in CiscoWorks QPM.) CiscoWorks Common Services Software requires 2 GB free disk space; therefore, make sure that you have a minimum of 9 GB free disk space before you install CiscoWorks Common Services and CiscoWorks QPM.
<b>Software</b>	Windows 2003 Server (Standard and Enterprise versions with Service Pack 1) Windows 2003 R2 Server (Standard and Enterprise)	Windows 2003 Server (Standard and Enterprise versions with Service Pack 1) Windows 2003 R2 Server (Standard and Enterprise)
<b>Browser</b>	Microsoft Internet Explorer 6.0 with Service Pack 2 Firefox 2.0	Microsoft Internet Explorer 6.0 with Service Pack 2 Firefox 2.0

**Table 3.** CiscoWorks QPM Server Requirement – Solaris

Server Component	Minimum Specification for Managing Small to Medium-Sized Networks	Minimum Specification for Managing Large Networks
<b>Processor</b>	Sun UltraSPARC IIIi or Sun UltraSPARC IIICu	Sun Dual UltraSPARC IIIi or Sun Dual UltraSPARC IIICu
<b>Memory</b>	2 GB RAM	4 GB RAM
<b>Disk space</b>	80 GB (The available disk space required depends the tasks you want to do in CiscoWorks QPM.) CiscoWorks Common Services Software requires 2 GB free disk space; therefore, make sure that you have a minimum of 9 GB free disk space before you install CiscoWorks Common Services and CiscoWorks QPM.	80 GB (The available disk space required depends the tasks you want to do in CiscoWorks QPM.) CiscoWorks Common Services Software requires 2 GB free disk space; therefore, make sure that you have a minimum of 9 GB free disk space before you install CiscoWorks Common Services and CiscoWorks QPM.
<b>Software</b>	Solaris 9 or Solaris 10 It is recommended that you install the Solaris OS in the following modes: <ul style="list-style-type: none"> <li>• Entire Distribution</li> <li>• Entire Distribution plus OEM Support</li> <li>• End User System Support</li> </ul>	Solaris 9 or Solaris 10 It is recommended that you install the Solaris OS in the following modes: <ul style="list-style-type: none"> <li>• Entire Distribution</li> <li>• Entire Distribution plus OEM Support</li> <li>• End User System Support</li> </ul>
<b>Browser (optional)</b>	Firefox 2.0	Firefox 2.0

**Table 4.** CiscoWorks QPM Client Requirement

Client Component	Specification
<b>System hardware and software</b>	<p>Any of these systems:</p> <ul style="list-style-type: none"> <li>• IBM PC-compatible computer with 1-GHz Pentium IV processor, running Windows</li> <li>• Sun UltraSPARC IIIi, running Solaris 9 or Solaris 10</li> </ul> <p>Monitor with display set to High Color (16 Bit)</p> <p>Any of the following OSs</p> <ul style="list-style-type: none"> <li>• Windows 2000 Professional with Service Pack 3 or Service Pack 4</li> <li>• Windows 2000 Server with Service Pack 3 or Service Pack 4</li> <li>• Windows 2000 Advanced Server with Service Pack 3 or Service Pack 4</li> <li>• Windows XP with Service Pack 1</li> <li>• Windows XP with Service Pack 2</li> <li>• Windows 2003 Server and Enterprise Edition</li> <li>• Windows 2003 Server and Enterprise Edition with Service Pack 1</li> <li>• Windows 2003 R2 Server (Standard and Enterprise versions)</li> <li>• Windows 2003 Server Standard and Enterprise Editions with Service Pack 2</li> <li>• Windows 2003 R2 Server Standard and Enterprise Editions with Service Pack 2</li> <li>• Windows Vista</li> <li>• Solaris 9 or Solaris 10</li> </ul>
<b>Memory</b>	512 MB
<b>Browser</b>	<p>On Windows and Windows XP clients, any of the following browsers:</p> <ul style="list-style-type: none"> <li>• Microsoft Internet Explorer 6.0 (version 6.0.2600)</li> <li>• Internet Explorer 6.0 with Service Pack 1 (version 6.0.2800)</li> <li>• Internet Explorer 6.0 with Service Pack 2 (version 6.0.2900) for Windows XP</li> <li>• Internet Explorer 6.0 with Service Pack 1 (version 6.0.3790.1830) for Windows 2003 R2</li> <li>• Internet Explorer 7.0</li> <li>• Firefox 2.0</li> </ul> <p>On Windows Vista clients:</p> <ul style="list-style-type: none"> <li>• Internet Explorer 7.0</li> </ul> <p>On Solaris clients:</p> <ul style="list-style-type: none"> <li>• Firefox 2.0</li> </ul>

### Ordering Information

To place an order, visit the [Cisco Ordering Home Page](#). Table 5 lists ordering information for CiscoWorks QPM.

**Table 5.** CiscoWorks QPM 4.1 ordering Information

Product Description	Part Number
<b>QPM combined (configuration and monitoring) base license, includes 500 managed nodes</b>	QPM-4.1-COMB-K9
<b>QPM monitoring-only base license, includes 500 managed nodes</b>	QPM-4.1-MON-K9
<b>QPM incremental core license for 500 managed nodes</b>	QPM-4.1-INCR-500
<b>QPM incremental core license for 1000 managed nodes</b>	QPM-4.1-INCR-1000
<b>QPM incremental core license for 2000 managed nodes</b>	QPM-4.1-INCR-2000
<b>QPM upgrade from monitoring-only to combined (configuration and monitoring) base license</b>	QPM-4.1-M2C-UPGR
<b>QPM upgrade from 3.x version to combined (configuration and monitoring) 4.0 base license</b>	QPM-3TO4-UPGR-K9
<b>QPM SMB (configuration and monitoring) base license, includes 20 managed nodes</b>	QPM-4.1-SMB-K9
<b>QPM incremental core license for 500 managed nodes</b>	QPM-4.1-INCR-500=
<b>QPM incremental core license for 1000 managed nodes</b>	QPM-4.1-INCR-1000=
<b>QPM incremental core license for 2000 managed nodes</b>	QPM-4.1-INCR-2000=

## Service and Support

Cisco offers a wide range of services programs to accelerate customer success. These innovative services programs are delivered through a unique combination of people, processes, tools, and partners, resulting in high levels of customer satisfaction. Cisco services help you to protect your network investment, optimize network operations, and prepare the network for new applications to extend network intelligence and the power of your business. For more information about Cisco services, see [Cisco Technical Support Services](#) or [Cisco Advanced Services](#).

## For More Information

For more information about CiscoWorks Quality of Service Policy Manager, visit <http://www.cisco.com/go/qpm>, contact your local account representative, or send an email to [ask-qpm-pm@cisco.com](mailto:ask-qpm-pm@cisco.com).



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